

REMARKS/ARGUMENTS

Applicant thanks Examiner Bogart for the courtesy of a telephonic interview with the undersigned Applicant's representative on September 13, 2007. All rejections of record were discussed, as summarized below, and it was agreed the claims in condition for allowance.

Rejection under 35 USC 112, first paragraph (enablement)

The Office believed that the specification was not enabling for making a dark brown form of copper (i.e., a mixture of cupric oxide and cuprous oxide). Applicants noted that this is clearly enabled and described in Example 1, describing a process in which "Fibers were allowed to dwell for no less than 2 minutes or until all fibers were plated by a dark brown form of copper." Moreover, the copper plating process is known (although not for use in making paper-based products); see specification at, e.g., the top of page 5.

Rejection Under 35 USC 103(a)

The Office rejected claims 1-3 and 5-7 as allegedly obvious in view of the combination Weinberg (5,856,248) and Gabbay (CA 2 404 972 A1). Weinberg was described in Applicant's previous response. Gabbay is newly cited. During the interview Examiner Bogart expressed the belief that the copper oxide of Gabbay could be used in the cellulose fibers of Weinberg because Gabbay teaches that copper oxide particles have antibacterial effects and Weinberg describes a product that contains copper hydroxide.

Gabbay

Gabbay described polymers (e.g., polypropylene fibers) containing copper particles (e.g., 1-10 microns in size) of cupric oxide and cuprous oxide. Gabbay teaches that the product is made by (for example) adding copper powder to a slurry of liquid polymer and forcing the liquid suspension through a spinneret (see entire specification, e.g., Example 1 on page 7). Gabby

further teaches that the product is a fiber that contains particles of copper oxide partly protruding from the surface of the fiber (see Figure 1).

Weinberg

Weinberg described chemically modifying cellulose fibers by a first stage treatment with a water soluble salt of a transition metal (e.g., copper sulfate) and an alkali (e.g., sodium hydroxide), resulting in a fiber having copper cations associated with cellulose by ionic bonds (col. 3, lines 18-19). Weinberg reports that the color of the copper treated cellulose is light blue (see column 3, line 22). Light blue color is a characteristic of copper hydroxide. In the second stage the fiber is treated with a solution of a bisbiguanide compound (e.g., chlorhexidine). The chlorhexidine is bound to copper by coordinative bonds thereby forming a bond between the fibers, the transition metal and bisbiguanide. The process results in a cellulose-copper-bisbiguanide compound complex attached to cellulose (column 3, lines 45-54).

The Office suggests that the copper oxide particles of Gabbay could be used in Weinberg process in place of copper sulfate. Initially Applicants believe that there would have been no motivation to combine these references: one related to modifying cellulose fibers while the second related to polymer fibers that contain copper oxide particles. Moreover, Weinberg specifically call for a "water soluble salt" of a transition metal. The copper oxide particles in Gabbay are oxides and are water insoluble. For example, see JT Baker (reference V in the *Notice of References Cited* from the Office) describing cuprous oxide as "practically insoluble in water"; also see the materials accompanying Applicant's declaration submitted March 5, 2007 at the request of the Office. Substitution of copper oxide for copper sulfate in Weinberg, even if, *arguendo*, there was any motivation for one of skill to do so, would not result in the claimed invention because, *inter alia*, water insoluble copper oxide would not react with alkali, cellulose, bisbiguanide, etc. in the manner in which the water soluble salt copper sulfate reacts in Weinberg. The substitution proposed by the Office would not be made by one of skill in the art.

Claim 4 ("A disposable feminine hygiene paper product according to claim 1 wherein said coated fibers are dispersed in said feminine hygiene paper product in a layer positioned in said product in contact with the genital area of the user") was rejected as allegedly obvious in view of Weinberg and Gabbay, discussed above, and US Pat. No. 6,124,221. The '221 patent is cited for teaching a skin contactable garment liner comprising an anti yeast infection liner. As claim 1 is nonobvious, the additional teaching of a garment liner does not render dependent claim 4 obvious.

For the reasons discussed above, the rejections should be withdrawn.

Related applications


During the interview it was again noted that copending application No. 10/757,786 (also examined by Examiner Bogart) and application No. 10/405,408 (examined by Examiner Mercier) have claims similar to that of the instant invention, and the status of the applications was noted.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested, if appropriate.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Randolph Ted Apple', with a stylized flourish at the end.

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